

Application No.: 10/681,471

Docket No.: JCLA11529

REMARKS**Present Status of the Application**

The Office Action rejected all presently-pending claims 1-22. Specifically, the Office Action rejected claims 1-3, 5, 7, 8, 10, 12-16 and 18 under 35 U.S.C. 102(b), as being anticipated by Glovatsky et al. (U.S. Patent 5,929,375). The Office Action also rejected claims 4, 6, 9, 11, 17 and 19-22 under 35 U.S.C. 103(a) as being unpatentable over Glovatsky et al. (U.S. Patent 5,929,375). Applicants deem that claims 1-22 have already clearly defined the invention and been distinguishable over the cited arts. Hence, the reconsideration of those claims is respectfully requested.

Summary of Applicants' Invention

The Applicant's invention is directed to a ground shield structure have a plurality of ground cells and interconnection members, wherein the ground cells are arranged to be separated from each other with a narrow slot and the interconnection members are used to electrically connect the ground cells to each other (page 5, paragraph[0017] through [0018]). Therefore, the ground shield structure can cut off the eddy current caused by the inducted current on the ground shield structure. Further, the ground shield structure possesses the feature of increasing the slow-wave factor so that the wave can slowly propagate and the needed area for the circuit layout is effectively reduced. In addition, the inductance quantity and capacitance quantity of the ground shield in a unit area are increased.

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Discussion of Office Action Rejections

The Office Action rejected claims 1-3, 5, 7, 8, 10, 12-16 and 18 under 35 U.S.C. 102(b), as being anticipated by Glovatsky et al. (U.S. Patent 5,929,375). The Office Action also rejected claims 4, 6, 9, 11, 17 and 19-22 under 35 U.S.C. 103(a) as being unpatentable over Glovatsky et al. (U.S. Patent 5,929,375). The Office Action further stated that

"Glovatsky et al. disclose a ground surface (18) having multi-edge ground cells, a slot and interconnection between the ground cells (Fig)" and "The teaching of Glovatsky et al. as discussed above does not disclose wherein the ground cells have different shapes of profiles (re claims 4, 9, 17), the ground surface includes a curve surface (re claim 6, 11, 19), the ground cell includes a + like (re claims 20-22). It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the shapes, profiles, surfaces of Glovatsky et al., since more than a mere change of form is necessary for patentability."

Applicants respectfully traverse this rejection and respectfully submits that claim 1 has been already distinguishable over the cited arts. As stated above, claim 1 recites:

Claim 1. A ground shield structure, suitable for use in an electronic circuit structure, the ground shield structure at least comprising:

a plurality of multi-edge ground cells, periodically, compactly, and complementarily distributed on a ground surface, wherein a slot exists between the two adjacent ground cells.

Claim 7. A ground shield structure, suitable for use in an electronic circuit structure, the ground shield structure at least comprising:

a ground surface, comprising a plurality of slots in a multi-edge shape, the slots are distributed in the ground surface by a periodic, compact and complementary arrangement.

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Claim 12. A ground shield structure, suitable for use in an electronic circuit structure, the ground shield structure at least comprising:

a ground surface, comprising a plurality of multi-edge ground cells, distributed on the ground surface by a periodic, compact and complementary arrangement.

(Emphasis added). Applicants assert that claims 1, 7 and 12 patently define over the cited art for at least the reason that the cited art fails to disclose at least the features emphasized above.

In the present invention, when an inductance coil over the ground shield structure is applied with a current, the inducted eddy current is formed on the ground shield structure. Because of the slots separating the ground cells from each other, the eddy current can be cut off. Further, since the slots according to the present invention are relatively narrow, the electric field on the ground shield structure does not leak to the bottom region of the ground shield structure through the slots so that the ground cells are used as the termination of the electric field (page 6, paragraph[0019]).

However, in the cited art, Glovatsky et al. provides an electromagnetic interference protection and Glovatsky et al. silence about the eddy current induced by the conductance coil over the molded circuit boards provided by them. Hence, Glovatsky et al. never mention or consider the problem caused by the eddy current on the molded circuit board. Although Glovatsky et al. describe sheets 14, 16 and 18 (shown in Fig. 2), they fail to teach or suggest the usage of the slots for separating the sheets from each other. Therefore, the molded circuit board provided by Glovatsky et al. does not possess the ability to cut off the eddy current even block out the electric field.

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Further, it is obvious that Glovatsky et al. focus on the problem caused by the electromagnetic interference and provide a way to solve the problem. Hence, applicants respectfully emphasize that even if people skill in the art would not modify the cited art provided by Glovatsky et al. with forming slots between the sheets to obtain the features of the present invention because the motivation and the goal of the cited art are totally different from those mentioned in the present invention.

Applicants respectfully submit that claims 1, 7 and 12 are believed to patentably distinguish over the cited arts.

For at least the foregoing reasons, Applicants respectfully submit that independent claims 1, 7 and 12 patentably define over the prior art references, and should be allowed. For at least the same reasons, dependent claims 2-6, 8-11 and 13-22 patentably define over the prior art as well.

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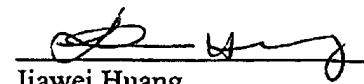
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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-22 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,
J.C. PATENTS

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Jiawei Huang
Registration No. 43,330

4 Venture, Suite 250
Irvine, CA 92618
Tel.: (949) 660-0761
Fax: (949)-660-0809